LIQUID CRYSTAL DISPLAY DEVICE WITH RETARDATION PLATES

ABSTRACT OF THE DISCLOSURE

A liquid crystal display device includes a liquid crystal cell, polarizers, a first retardation plate arranged between the liquid crystal cell and the first polarizer, and a second retardation plate arranged between the liquid crystal cell and the second polarizer. Each retardation plate has an optical axis in a plane parallel to the substrate surface and a retardation of substantially $\lambda/4$. The optical axis of one retardation plate is perpendicular to the optical axis of the other. The polarizing axes of the polarizers are arranged at an angle of 45° with respect to the optical axes of the retardation plates. The liquid crystal cell is arranged such that a state of alignment of liquid crystal molecules changes, accompanying a change in a polar angle and/or change in an azimuth, upon application of a voltage.